General

Guideline Title

Complications of colonoscopy.

Bibliographic Source(s)

ASGE Standards of Practice Committee, Fisher DA, Maple JT, Ben-Menachem T, Cash BD, Decker GA, Early DS, Evans JA, Fanelli RD, Fukami N, Hwang JH, Jain R, Jue TL, Khan KM, Malpas PM, Sharaf RN, Shergill AK, Dominitz JA. Complications of colonoscopy. Gastrointest Endosc. 2011 Oct;74(4):745-52. [119 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Dominitz JA, Eisen GM, Baron TH, et al. Complications of colonoscopy. Gastrointest Endosc 2003;57:441-5.

Recommendations

Major Recommendations

Complications are inherent in the performance of colonoscopy. As endoscopy assumes a more therapeutic role in the management of Gastrointestinal (GI) disorders, the potential for complications will likely increase. Knowledge of potential endoscopic complications, their expected frequency, and the risk factors associated with their occurrence may help to minimize the incidence of complications. Endoscopists are expected to carefully select patients for the appropriate intervention, be familiar with the planned procedure and available technology, and be prepared to manage any adverse events that may arise. Once a complication occurs, early recognition and prompt intervention will minimize the morbidity and mortality associated with that complication. Review of complications as part of a continuing quality improvement process may serve to educate endoscopists, help to reduce the risk of future complications, and improve the overall quality of endoscopy.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Colonoscopy-related complications

Note: A discussion of the diagnosis and management of all complications of colonoscopy is beyond the scope of this document, although general principles are reviewed.

Guideline Category

Management

Prevention

Risk Assessment

Clinical Specialty

Colon and Rectal Surgery

Gastroenterology

Internal Medicine

Intended Users

Allied Health Personnel

Nurses

Physicians

Guideline Objective(s)

- To provide information that may assist endoscopists in providing care to patients undergoing colonoscopy and increase knowledge of potential complications
- To update the 2003 American Society of Gastrointestinal Endoscopy (ASGE) guideline on complications of colonoscopy

Target Population

Patients undergoing a colonoscopy examination

Interventions and Practices Considered

1. Endoscopists are expected to:
    - Select patients carefully
    - Be aware of potential endoscopic complications, their expected frequency, and the risk factors associated with their occurrence
    - Be familiar with the planned procedure and available technology
    - Be prepared to manage any adverse events
2. Early recognition and prompt intervention of complications
3. Review of complications to reduce future risk and improve overall quality

Major Outcomes Considered

Complications, including:

- Cardiovascular and pulmonary complications*
- Colonic perforation
- Hemorrhage
- Postpolypectomy electrocoagulation syndrome
- Mortality
- Infection
- Gas explosion
- Abdominal pain or discomfort
- Complications associated with specific colonoscopic interventions; including tattooing, dilation, stent placement, decompression tube placement, percutaneous endoscopic colostomy, hemostasis and foreign body removal

*Cardiovascular and pulmonary complications related to sedation are reviewed in detail in the 2008 American Society for Gastrointestinal Endoscopy Guideline for Sedation and Anesthesia in GI Endoscopy.

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

The Standards of Practice Committee of the American Society for Gastrointestinal Endoscopy performed a search of the medical literature by using PubMed (1990-2011). Additional references were obtained from the bibliographies of the identified articles and from recommendations of expert consultants. When limited or no data existed from well-designed prospective trials, emphasis was given to results from large series and reports from recognized experts.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Expert Consensus

Rating Scheme for the Strength of the Evidence

Not applicable

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

- The committee meets formally twice a year (Spring and Fall) and edit/complete documents by consensus. The time from completion and publication is typically less than 6 weeks and data is updated until completion of the article, based on emerging evidence.
- Position statements are based on a critical review of the available data and expert consensus at the time the documents are drafted.

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Not stated

Description of Method of Guideline Validation

Not applicable

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence supporting the recommendations is not specifically stated.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate review of complications as part of a continuing quality improvement process may serve to educate endoscopists, help to reduce the risk of future complications, and improve the overall quality of endoscopy.

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

Qualifying Statements

- Position statements are based on a critical review of the available data and expert consensus at the time that the document was drafted. Further controlled clinical studies may be needed to clarify aspects of this document, which may be revised as necessary to account for changes in technology, new data, or other aspects of clinical practice.
- This document is intended to be an educational device to provide information that may assist endoscopists in providing care to patients. This position statement is not a rule and should not be construed as establishing a legal standard of care or as encouraging, advocating, requiring, or discouraging any particular treatment. Clinical decisions in any particular case involve a complex analysis of the patient's condition and available courses of action. Therefore, clinical considerations may lead an endoscopist to take a course of action that varies from this position statement.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2003 (revised 2011 Oct)

Guideline Developer(s)

American Society for Gastrointestinal Endoscopy - Medical Specialty Society

Source(s) of Funding

American Society for Gastrointestinal Endoscopy

Guideline Committee

Standards of Practice Committee of the American Society of Gastrointestinal Endoscopy

Composition of Group That Authored the Guideline

Committee Members: Deborah A. Fisher, MD, MHS, FASGE; John T. Maple, DO; Tamir Ben-Menachem, MD; Brooks D. Cash, MD; G. Anton Decker, MD; Dayna S. Early, MD, FASGE; John A. Evans, MD; Robert D. Fanelli, MD *(SAGES Representative)*; Norio Fukami, MD; Joo Ha Hwang, MD, PhD, FASGE; Rajeev Jain, MD; Terry L. Jue, MD; Khalid M. Khan, MD (NASPGHN Representative); Phyllis M. Malpas, MA, RN, CGRN *(SGNA Representative)*; Ravi N. Sharaf, MD; Amandeep K. Shergill, MD; Jason A. Dominitz, MD, MHS, FASGE *(Chair)*

Financial Disclosures/Conflicts of Interest

D. Fisher is a consultant for Epigenomics. P. Malpas is a consultant for Olympus America. J. Dominitz is a consultant for Epigenomics and Salix Pharmaceuticals. B. Cash is a consultant for Salix Pharmaceuticals, J. Evans is a consultant for Cook Medical. G. Decker is a consultant for Facet Biotechnology. No other financial relationships relevant to this publication were disclosed.

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Guideline Availability

Electronic copies: Available from the American Society for Gastrointestinal Endoscopy Web site .

Print copies: Available from the American Society for Gastrointestinal Endoscopy, 1520 Kensington Road, Suite 202, Oak Brook, IL 60523

Availability of Companion Documents

The following is available:

- Complications of colonoscopy. CME course. Available from the American Society for Gastrointestinal Endoscopy Web site .

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on August 17, 2012.

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